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# ROBERT RAMSAY, M.D.

Fellow of the Royal College of Physicians, and Professor of Natural History in the University of Edinburgh.

DEAR SIR,

THINK myfelf happy in having an opportunity of giving you this mark of the fense I have of your fleady friendship, from its origin, in 1769, to the present moment: From the beginning, it has proved a regular feries of good offices: You never confidered me with the jealoufy of a Rival courting the fame Mistress, but, with uncommon generofity, promoted all my pursuits after DAME NATURE, whether she retired to the depths of the Highland Glens, or lurked amidst the intricate groups of the stormy Hebrides. If, in my late expedition, the has granted me any favours, (for the proved rather coy), the humbled me by faying, That I was indebted to you for them. So that I find myfelf bound to make public acknowledgements of advantages acquired by means of the clue you gave of arriving at the few favours I have obtained.

Nor-

NOTWITHSTANDING I own your power with the Lady on your fide of the Tweed, yet I never can be induced to omit any opportunity of recommending myself to her good graces, and, with you, must ever remain a warm admirer of her univerfal charms. But the following analysis of one which captivates me most, is now offered to you, with the hopes of meeting with your approbation, and that of the feveral votaries who depend on you for a more intimate acquaintance with her various beauties. Long may you enjoy health, and every happiness, to perform so agreeable a task: May you be successful in extending her empire: Good fortune attend you in each of her haunts, whether she affects the air. the woods, or the fields; whether, like an Oread, the treads jocund on the misty mountain's top; or a Naiad, sporting in your rapid streams. Again, fuccess attend you every where; and may none but BIRDs of good omen flutter round you.

Sis licet felix ubicunque mavis,
Et memor nostri, mihi care, vivas:
Teque nec laevus vetet ire Picus,
Nec vaga Cornix.

Downing, ]
Jan 1. 1773.}

THOMASPENNANT.

# PREFACE.

ORNITHOLOGY is a science which treats of Birds; describes their form, external and internal; and teaches their oeconomy and their uses.

A Bird is an animal covered with feathers; furnished with a bill; having two wings, and only two legs; with the faculty, except in very few instances, of removing itself from place to place through the air.

## External Parts of BIRDS.

A Bird may be divided into HEAD, BODY, and LIMES.

## H E A D.

Rostrum is a hard horny substance, consisting of an upper and under part, extending from the head, and answering to the mandibles in quadrupeds. Its edges generally plain and sharp, like the edge of a knife, cultrated\*, as the bills of Crows; but sometimes ferrated,

\* This and other terms are explained by figures in the British Zoology, 8vo, vol. 1. page 121. A few terms are explained from the figure on the title.

Bill

ferrated, as in the Toucan, or jagged, as in the Gan-NET and fome Herons; or pelinated, as in the Duck; or denticulated, as in the Mergansers; but always destitute of real teeth immersed in fockets.

The Base in Falcons is covered with a naked skin or CERE (CERA;) in some birds with a carneous appendage, as the TURKEY; or a callous, as the CURASSO.

In birds of prey, the bill is hooked at the end, and fit for tearing: In Crows, strait and strong, for picking: In water-sowl, other long and pointed, for striking, or slender and blunt, so searching in the mire; or flat and broad for gobbling: Its other uses are for building ness; seeding the young; climbing, as in PARROTS; or, lastly, as an instrument of defence, or offence.

Nostrils. (Nares,) the nice instruments of discerning their food, are placed either in the middle of the upper mandible, or near the base, or at the base, as in Parrots; or behind the base, as in Toucans and Hornebills: But some birds, as the Gannet, are destitute of nostrils. The nostrils are generally naked; but sometimes covered with bristles reslected over them, as in Crows, or hid in the seathers, as in Parrots, &c.

#### PREFACE.

The forepart of the head is called the FRONT (Capiftrum), the fummit (vertex) or the crown: The hind part, with the next joint of the neck (nucha), the nape: The space between the bill and the eyes, which in HERONS, GREBES, &c. is naked (Lora), the STRAPS: The space beneath the eyes (Genae), the cheeks.

Parts of the Head.

(Orbitae) the eye-lids; in some birds naked, in o- Orbits.

Birds have no eyebrows; but the GROUS kind have in lieu a fearlet naked skin above, which are called Supercilia; the same word is also applied to any line of a different colour that passes from the bill over the eyes.

Birds are destitute of *auricles* or external ears, having an orifice for admission of sound, open in all, but Owls, whose ears are furnished with valves.

The chin, the space between the parts of the lower Chin. mandible and the neck, is generally covered with feathers; but, in the Cock and some others, have carneous appendages called WATTLES (Palearia); in others, is naked, and surnished with A Pouch, capable of great dilatation (Sacculus), as in the Pelican and Corvorants.

(Collum)

Neck.

(Collum) the part that connects the head to the body, is longer in birds than any other animals; and longer in fuch as have long legs than those that have short, either for gathering up their meat from the ground, or striking their prey in the water, except in web-stooted fowl, which are, by reversing their bodies, destined to search for food at the bottom of waters, as Swans, and the like. Birds, especially those that have a long neck, have the power of retracting, bending, or stretching it out, in order to change their center of gravity from their legs to their wings.

#### B O D Y.

Back.

Confifts of the BACK, (Dorfum), which is flat, strait, and inclines, terminated by the

Rump.

(UROPYGIUM) furnished with two glands, secreting a fattish liquor from an orifice each has; which the birds express with their bills to oil or anoint the discomposed parts of their feathers. These glands are particularly large in most web-sooted water-sowl; but in the GREBES, which want tails, they are smaller.

Breaft.

(Peclus) is ridged and very muscular, defended by a forked bone, (clavicula), the MERRY THOUGHT.

The short-winged birds, such as GROUS, &c. have their breasts most sleshy or muscular; as they require greater powers in slying than the long-winged birds,

fuch

fuch as Gulls, Herons, which are specifically lighter, and have greater extent of fail.

(Abdomen) is covered with a strong skin, and con-Belly.

The VENT or vent-feathers, (Crissum), which lies Vent. between the thighs and the tail. The Anus lies hid in those feathers.

#### LIMBS.

WINGS, (Alae,) adapted for flight in all birds ex- Wings, cept the Dodo, Ostriches, great Auk, and the Pinguins, whose wings are too short for the use of slying; but in the Dodo and Ostrich, when extended, serve to accelerate their motion in running; and in the Pinguins perform the office of fins, in swimming or diving.

The wings have near their end an appendage covered with four or five feathers called the BASTARD wing. WING, (ala notha,) and alula spuria.

The leffer coverts (tectrices) are the feathers which Leffer co verts.

The greater coverts are those which lie beneath the Greater coformer, and cover the quill-seathers and the secondaries.

Quill-feathers. The Quill-feathers (primores) spring from the first bones (digiti and metacarpi) of the wings, and are 10 in number.

Quill-feathers are broader on their inner than exterior fides.

Secondaries,

The SECONDARIES (fecondariae) are those that rise from the second part (cubitus), and are about eighteen in number, are equally broad on both sides. The primary and secondary wing-feathers are called REMIGES.

Tertials.

A tuft of feathers placed beyond the fecondaries near the junction of the wings with the body. This, in water-fowl, is generally longer than the fecondaries, and cuneiform.

Scapulars.

The SCAPULARS are a tuft of long feathers arising near the junction of the wings (brachia) with the body, and lie along the sides of the back, but may be eafily distinguished, and raised with one's singer.

Inner co-

The INNER COVERTS are those that clothe the under side of the wing.

Subaxillary feathers.

The Subaxillary are peculiar to the greater Paradise.

The wings of some birds are instruments of offence; the Anhima of *Marcgrave* has two strong spines in the front of each wing, a species of Plover, EDw. tab.

47. and 280. has a fingle one on each; the whole tribe of JACANA, and the GAMBO, or spur-winged Goose of Mr Willughby the same.

The TAIL is the director, or rudder, of birds in Tail. their flight; they rife, fink, or turn by its means; for, when the head points one way, the tail inclines to the other fide: It is, befides, an equilibrium or counterpoife to the other parts; the use is very evident in the Kite and Swallows.

The TAIL confilts of strong feathers (rectrices, ) ten in number, as in the WOODPECKERS, &c. twelve in the Hawk tribe, and many others: The GALLINACEOUS, the MERGANSERS, and DUCK kind, of more.

It is either even at the end, as in most birds, or forked, as in Swallows, &c. or cuneated, as in Mag-PIES, &c. or rounded, as in the PURPLE JACKDAW of Catefby. The GREBE is destitute of a tail, the rump being covered with down; and that of the Cassowary with the feathers of the back.

Immediately over the tail, are certain feathers that fpring from the lower part of the back, and are called the coverts of the tail (uropygium.)

(Femora) are covered entirely with feathers in all Thighs land-birds, except the BusTARDs and the OSTRICHES; the lower part of those of all waders, or cloven-footed water-fowl, are naked; that of all webbed-footed fowl

the

the fame, but in a less degree; in rapacious birds, are very muscular,

Legs. (Crura), those of rapacious sowls very strong, surnished with large tendons, and fitted for tearing, and a firm gripe. The legs of some of this genus are covered with seathers down to the toes, such as the Golden Eagle, others to the very nails; but those of most other birds are covered with scales, or with a skin divided into segments, or continuous. In some of the Pies, and in all the Passerine tribe, the skin is thin and membranous; in those of web-sooted water-fowl, strong.

The legs of most birds are placed near the center of gravity: In land-birds, or in Waders that want the back toe, exactly so; for they want that appendage to keep them erect. Auks, Grebes, Divers, and Pinguins, have their legs placed quite behind, so are necessitated to sit erect: Their pace is aukward and difficult, walking like men in fetters; hence Linnaeus styles their feet pedes compedes.

The legs of all cloven-footed water-fowl are long, as they must wade in search of food: Of the palmated, short, except those of the FLAMINGO, the AVOSET, and the COURIER.

Feet. (Pedes) All land-birds that perch have a large back toe: Most of them have three toes forward, and one back-

backward. WOODPECKERS, PARROTS, and other birds that climb much, have two forward, two backward; but PARROTS have the power of bringing one. of their hind toes forward while they are feeding themfelves. Ow Ls have also the power of turning one of their fore toes backward. All the toes of the Swift turn forwards, which is peculiar among land-birds: The TRIDACTYLOUS Woodpecker is also anomalous, having only two toes forward, one backward: The Os-TRICH is another, having but two toes.

(Digiti) The toes of all WADERS are divided; but, Toes. between the exterior and middle toe, is generally a small web, reaching as far as the first joint.

The Spoonbill and Sandpiper I received from N. America, have webs that reach half way up each toe, or are femipalmated.

The toes of birds that fwim are either plain, as in the fingle instance of the common water HEN or GALLINULE; or pinnated, as in the Coors and GREBES; or entirely webbed or palmated, as in all other fwimmers.

All the PLOYER tribe, or CHARADRII, want the In the fwimmers, the fame want prevails among the ALBATROSSES and AUKS. No waterfowl perch, except certain HERONS; the CORVORANT; and the SHAG.

(Ungues) Rapacious birds have very ftrong, hooked, Claws. and fharp claws, VULTURES excepted. Those of all land-

land-birds that rooft on trees have also hooked claws, to enable them to perch in safety while asleep.

The GALLINACEOUS tribe have broad concave claws for fcraping up the ground.

GREBES have flat nails like the human.

Among water-fowl only the SKUA, Br. Zool. II. p. 417. 3d ed. No. 234. and the BLACK TOED GULL, Br. Zool. II. p. 419. 3d ed. No. 435. have ftrong hooked or aquiline claws. All land-birds perch on trees, except the STRUTHIOUS and fome of the GALLINACEOUS tribe. PARROTS climb; WOODPECKERS creep up the bodies and boughs of trees; SWALLOWS cling.

All water-fowl rest on the ground, except certain HERONS, and one species of IBIS, the SPOONBILL, one or two species of Ducks, and of CORVORANTS.

#### FEATHERS.

Feathers are defigned for two uses, as coverings from the inclemency of the weather, and instruments of motion through the air. They are placed in such a manner as to fall over one another, tegulatim, so as to permit the wet to run off, and to exclude the cold; and those on the body are placed in a quincuncial form, most apparent in the thick-skinned water-sowl, particularly in the DIVERS.

The parts of a feather are, the SHAFTS, corneous, strong, light, rounded, and hollow at the lower part; at the upper, convex above, concave beneath, and chiefly composed of a pith.

Shafts.

On each fide, the SHAFTs are the

VANES, broad on one fide, narrow on the other: Vanes. Each vane confifts of a multitude of thin laminae \*, stiff, and of the nature of a split quill. These laminae are closely braced together by the elegant contrivance of a multitude of fmall briftles, those on one fide hooked, the other strait, which lock into each other, and keep the vanes fmooth, compact, and ftrong.

The vanes near the bottom of the fhafts are foft, unconnected, and downy.

Feathers are of three kinds, fuch as compose the instruments of flight, as the PEN feathers, or those which form the wings and tail, and have a large shaft. The vanes of the exterior fide bending downward, of the interior upwards, lying close on each other, so that, when spread, not a feather misses its impulse on the air +. The component parts of these feathers are described before.

Pen feathers.

The feathers that cover the body, which may be properly called the PLUMAGE, have little shaft, and much vane, and never are exerted or relaxed, unless in anger, fright, or illness.

Plumage.

The

Derham's physic, theol. 336. tab. f. 18. 19,

Derham.

Down.

The Down, PLUMAE, which is dispersed over the whole body amidst the plumage, is short, fost, unconnected, confifts of lanuginous vanes, and is intended for excluding that air or water which may penetrate or escape through the former. particularly apparent in aquatic birds, and remarkably fo in the Ansertne tribe. There are exceptions to the forms of feathers. The vanes of the fubaxillary feathers of the PARADISE are unconnected, and the laminae distant, looking like herring-bone. of the tail of the OSTRICH, and head of a species of CURASSO, curled. Those of the Cassowary consist of two shafts, arising from a common stem at the bottom. As do, at the approach of winter, (after moulting), those of the PTARMIGANS of Arthic countries. The feathers of the PINGUINS, particularly those of the wings, consisting chiefly of thin flat shafts, and more refemble scales than feathers; those of the tail, like split whale-bone.

### FLIGHT.

The flight of birds is various; for, had all the fame, none could elude that of rapacious birds. Those which are much on wing, or flit from place to place, often owe their preservation to that cause: Those in the water to diving.

Rapacious.

KITES, and many of the FALCON tribe, glide fmoothly through the air, with scarce any apparent motion of the wings.

Moft

Most of the order of PIES fly quick, with a frequent repetition of the motion of the wings. The PARADISE floats on the air. WOODPECKERS fly aukwardly, and by jerks, and have a propenfity to fink in their progrefs.

Pies.

The GALLINACEOUS tribe, in general, fly very strong and fwiftly; but their course is feldom long, by reason of the weight of their bodies.

'Gallinaceous.

The COLUMBINE race is of fingular swiftness; witness the flight of the Messenger Pigeon.

Columbine.

The Passerine fly with a quick repetition of Passerine. strokes; their flight, except in migration, is feldom diffant.

Among them, the Swallow tribe is remarkably agile, their evolutions fudden, and their continuance on wing long.

Nature hath denied flight to the STRUTHIOUS; but Struthious. still, in running, their short wings are of use, when erect, to collect the wind, and like fails to accelerate their motion.

Many of the greater CLOVEN-FOOTED water-fowl, or WADERS, have a flow and flagging flight; but most of the leffer fly fwiftly, and most of them with extended legs, to compensate the shortness of their tails. RAILS and GALLINULES, fly with their legs hanging down.

Pinnated feet.

COOTS and GREBES, with difficulty are forced from the water; but when they rife fly fwiftly. GREBES, and also Divers, fly with their hind parts downwards, by reason of the forwardness of their wings:

Web-footed fowl are various in their flight; feveral Web-footed. have

have a failing or flagging wing, fuch as Gulls. Pinaguins, and a fingle Auk, are denied the power of flight. Wilderses, in their migrations, do not fly pell-mell, but in a regular figure, in order to cut the air with greater ease; for example, in long lines, in the figure of a > or some pointed form or letter, as the ancients report that the Cranes assumed, in their annual migrations, till their order was broken by storms.

Strymona fic gelidum, bruma pellente, relinquunt, Poturae te, Nile, Grues, primoque volatu Effingunt varias, cafu monstrante, figuras. Mox ubi percussit tensas Norus altior alas, Consus temere immistae glomerantur in orbes, Et turbata perit dispersis litera \* pennis.

Lucan. lib. v. 1. 711.

# Of the NUPTIALS, NIDIFICATION, and EGGS of BIRDS.

Most birds are monogamous, or pair, in spring fixing on a mate, and keeping constant, till the cares of incubation and educating the young brood is past. This is the case, as far as we know, with all the birds of the first, second, sourth, and fifth orders.

Birds that lose their mates early associate with others, and birds that lose their first eggs will pair and lay again. The male as well as semale of several join alternately

in

\* Y A A.

in the trouble of incubation, and always in that of nutrition; when the young are hatched, both are busied in looking out for, and bringing food to the nestlings; and, at that period, the mates of the melodious tribes, who, before, were perched on some sprig, and by their warbling alleviated the care of the semales confined to the nest, now join in the common duty.

Of the Gallinaceous tribe, the greatest part are polygamous, at least in a tame state; the Pheasant, many of the Grous, the Partridges, and Bustards are monogamous; of the Grous, the Cock of the wood, and the Black Game assemble the semales during the season of love, by their cries:

#### Et venerem incertam rapiunt.

The males of polygamous birds neglect their young, and, in some cases, would destroy them, if they met with them. The oeconomy of the STRUTHIOUS order, in this respect, is obscure. It is probable that the three species in the genus Ostrich are polygamous, like the common poultry, for they lay many eggs; the Dodois said to lay but one.

All waders or cloven-footed fowl are monogamous; and all with pinnated feet, as far as I know, are also monogamous, except the Ruffs.

The swimmers or web-sooted sowl observe the same order, as far as can be remarked with any certainty; but many of the Auks assemble in the rocks in such numbers, and each individual so contiguous, that it is not possible to determine their method in this article.

It may be remarked, that the affection of birds to their young is very violent during the whole time of nutrition, or as long as they continue in a helpless state; but, so soon as the brood can fly and shift for it-felf, the parents neglect, and even drive it from their haunts, the affection ceasing with the necessity of it; But, during that period,

The mothers nurse it, and the sires defend;
The young dismiss'd to wander earth, or air,
There stops the instinct, and there ends the care;
The link dissolves, each seeks a fresh embrace,
Another love succeeds, another race.

# NIDIFICATION.

The nest of a bird is one of those daily miracles that from its familiarity is passed over without regard. We stare with wonder at things that rarely happen, and neglect the daily operations of nature that ought first to excite our admiration and claim our attention.

Each

Each bird, after nuptials, prepares a place fuited to its species, for the depositing its eggs and sheltering its little brood: Different genera, and different species, fet about the task in manners suitable to their several natures; yet, every individual of the fame species collects the very fame materials, puts them together in the same form, and chuses the same fort of situation for placing this temporary habitation. The young bird of the last year, which never faw the building of a nest, directed by a heaven-taught fagacity, pursues the fame plan in the structure of it, and felects the fame materials as its parent did before. Birds of the fame species, of different and remote countries, do the fame. The SWALLows of England, and of the remoter parts of Germany, observe the same order of architecture.

The nests of the larger rapacious birds are rude, made of sticks and bents, but often lined with something foft; they generally build in high rocks, ruined towers, and in defolate places: Enemies to the whole feathered creation, they feem conscious of attacks, and feek folitude. A few build upon the ground.

SHRIKES, the least of RAPACIOUS birds, build their nests in bushes, with moss, wool, &c.

The order of PIES is very irregular in the structure Pies; of their nests. PARROTS, and in fact, all birds with two toes forward and two backward, (as far as I know,)

Rapacious:

lay

lay their eggs in the hollows of trees. And most of this order creep along the bodies of trees, and lodgetheir eggs also within them.

Crows build in trees: Among them, the neft of the Magrie, composed of rude materials, is made with much art, quite covered with thorns, and only a hole left for admittance.

The nests of the Orioles are contrived with wonderful fagacity, and are hung at the end of some bough, or between the sorks of extreme branches. In Europe, only three birds have pensile nests; the common Oriola, the Parus Pendulinus, or Hangmest Titmouse, and one more\*. But in the Torrid Zones, where the birds fear the search of the gliding serpent and inquisitive monkey, the instances are very frequent, a marvellous instinct implanted in them for the preservation of their young.

Gallinaceous. Struthious. All of the Gallinaceous and Struthious orders lay their eggs on the ground. The Ostrich is the only exception, among birds, of the want of natural affection: Which leaveth her eggs in the earth, and warmeth them in the dust, and forgetteth that the foot may crush them, or the wild beast may break them.

Columbine.

The COLUMBINE race makes a most artless nest, a few sticks laid across suffice.

Most

Vide Tour in Scotland, 2d Ed. page 101.

Most of the Passerine order build their nests in shrubs or bushes, and some in holes of walls, or banks. Several in the Torrid Zone are penfile from the boughs of high trees; that of the TAYLOR BIRD\*, a wondrous instance. Some of this order, such as larks, and the GOATSUCKER, on the ground. Some swallows make a curious plaister nest beneath the roofs of houses; and an Indian species, one of a certain glutinous matter, which are collected as delicate ingredients for foups of Chinese epicures.

Pafferine.

Most of the cloven-footed water-fowl, or waders, lay Waders. upon the ground. SPOONBILLS and the COMMON HERON build in trees, and make large nests with sticks, &c. STORKS build on churches, or the tops of houses.

· Coors make a great nest near the water-fide.

Coots.

GREBES, in the water, a floating nest, perhaps ad- Grebes. hering to fome neighbouring reeds.

Web-footed fowl breed either on the ground, as Web-footed. the Avoset, Terns, some of the Gulls, Mer-GANSERS, and DUCKS: The last pull the down from their breafts, to make a fofter and warmer bed for their voung. Auks and Guillemots lay their eggs 'on the naked flielves of high rocks; PINGUINS in holes under ground: Among the Pelecans, that which gives

Indian Zool.

gives name to the genus, makes its nest in the desart, on the ground. SHAGS, sometimes on trees; CORVO-RANTS, and GANNETS, on high rocks, with sticks, dried Alge, and other coarse materials.

## E G G S.

Rapacious.

Rapacious birds, in general, lay few eggs; eagles, and the larger kinds, fewer than the leffer. The eggs of falcons and owls are rounder than those of most other birds; lay more than six.

Pies.

The order of pies vary greatly in the number of their eggs.

PARROTS lay only two or three white eggs.

Crows lay fix eggs, greenish, mottled with dusky.

Cuckoos, as far as I can learn, two.

WOODPECKERS, WRYNECK, and KINGSFISH-ER, lay eggs of a most clear white, and semi-transparent colour. The WOODPECKERS lay six, the others, more.

The NUTHATCH lays often in the year, eight at a time, white, spotted with brown.

The HOOPOE lays but two cinereous eggs.

The CREEPER lays a great number of eggs.

The Honeysucker, the least and most desenceless of birds, lays but two: But Providence wisely prevents the extinction of the genus, by a swiftness of flight that eludes every pursuit.

The GALLINACEOUS order, the most useful of any Gallinaceto mankind, lay the most eggs, from eight to twenty; ous. Benigna circa hoc natura, innocua et esculenta animalia foecunda generavit, is a fine observation of Pliny. With exception to the buftard, a bird that hangs be-.tween the GALLINACEOUS and the Waders, which lays only two.

The COLUMBINE order lays but two white eggs; but the domestic kind, breeding almost every month, supports the remark of the Roman naturalist.

All of the PASSERINE order lay from four to fix Pafferine. eggs, except the Titmice and the Wren, which lay fifteen or eighteen, and the Goatfucker, which lays only two.

The STRUTHIOUS order, which confifts but of two Struthious. genera, difagree much in the number of eggs: The OSTRICH laying many, as far as fifty; the Dodo, but one.

The CLOVEN-FOOTED water-fowl, or WADERS, Waders, lay, in general, four eggs. The CRANE and the Non-FOLK PLOVER, feldom more than two: All those of the SNIPE and PLOVER genus are of a dirty white, or olive, fpotted with black, and scarce to be distinguished in the holes they lay in. The bird called the Land Rail, (an ambiguous species,) lays from fifteen to twenty. Of birds with PINNATED feet, the Coot lays feven or eight eggs, and fometimes more. GREBES, from four to eight, and those white.

Web-foot-

The Web-footed, or swimmers, differ in the number of their eggs. Those which border on the order of Waders, lay few eggs; the Avoset, two; the Flamingo, three; the Albatross, the Auks, and Guillemots, lay only one egg a-piece: The eggs of the two last are of a fize strangely large in proportion to the bulk of the birds. They are commonly of a pale green colour, spotted and striped so variously, that not two are alike; which gives every individual the means of distinguishing its own, on the naked rock, where such multitudes assemble.

DIVERS, only two.

TERNS and GULLS, lay about three eggs, of a dirty olive, spotted with black.

DUCKS lay from eight to twenty eggs; the eggs of all the genus are of a pale green, or white, and unfpotted.

PINGUINS probably lay but one egg.

Of the Pelecan genus, the Gannet lays but one egg; the Shags or Corvorants, fix or feven, all white; the last, the most oblong of eggs.

A minute account of the eggs of birds merits a treatife of itself, or should follow the description of each species. This is only meant to shew the great conformity nature observes in the shape and colours of the eggs of congenerous birds; and also, that she keeps the same uniformity of colour in the eggs, as in the plumage of the birds they belong to.

Zinanni,

Zinanni published, at Venice, in 1737, a treatise on eggs, illustrated with accurate figures of 106 eggs. Mr Reyger of Dantzick published, in 1766, a posthumous work by Klein, with 21 plates, elegantly coloured: But much remains for suture writers.

### S Y S T E M.

Considering the many fystems that have been offered to the public of late years \*, I hope I shall not be accused of national partiality in giving the preference to that composed by Mr RAY in 1667, and asterwards published in 1678. It would be unfair to conceal the writer, from whom our great countryman took the original hint of forming that system, which has since proved the soundation of all that has been composed since that period.

It was a Frenchman, Belon of Mans, who first attempted to range birds according to their natures, and performed great matters, considering the unenlightened age he lived in; for his book was published in 1555. His arrangement of rapacious birds is as judicious as

\* By M. Barrere of Perpignan in 1745, Mr Klein in 1750, Mr Moebring in 1753, M. Brisson in 1760, and by Linnaeus at different periods. Mr Ray formed (in conjunction with Mr Willughby) his tables of animals, in the winter 1667, for the use of Bishop Wilkin's real character.

that of the latest writers; for his second chapter treats of Vultures, Falcons, Shrikes, and Owls; in the two next, he passes over to the web-sooted water-sowl, and to the cloven-sooted; in the fifth, he includes the Gallinaceous and Struthious, but mixes with them the Plovers, Buntings, and Larks; in the fixth are the Pies, Pigeons, and Thrushes; and the seventh takes in the rest of the passerine order.

Notwithstanding the great defects that every naturalist will at once see in the arrangement of the lesser birds of this writer, yet he will observe a rectifude of intention in general, and a fine notion of fystem, which was left to the following age to mature and bring to perfection. Accordingly, Mr RAY, and his illustrious pupil the Hon. FRA. WILLUGHBY, assumed the plan, but, with great judgment, flung into their proper stations and proper genera those which Belon had confusedly mixed together. They formed the great divifion of TERRESTRIAL and AQUATIC birds; they made every species occupy their proper place, confulting at once exterior form, and natural habit. They could not bear the affected intervention of aquatic birds in the midst of terrestrial birds. They placed the last by themselves, clear and distinct from those whose haunts and occonomy were fo different.

Various attempts have been made to alter this fyftem of our countrymen. It is a difagreeable and invidious talk to expose the defects of other methodists, who may have, in many respects, great merit. I leave that to the peevish malignancy of the minute critics; therefore shall only acknowledge the sources from which I draw the materials of the present work, and give each their due share of merit.

Mr RAy's general plan is fo judicious, that to me · it feems fcarce possible to make any change in it for the better; yet, notwithstanding he was in a manner the founder of fystematic Zoology, later discoveries have made a few improvements on his labours. candid friend Linnaeus will not take it amis, that I, in part, neglect his example; for I permit the LAND-FOWL to follow one another, undivided by the WA-TER-FOWL, the Grallae and Anseres of his system; but, in my generical arrangement, I most punctually attend to the order he has given in his feveral divisions, except in those of his Anseres, and a few of his Gral-For, after the manner of Mr Briffon, I make a distinct order of WATER-FOWL with pinnated feet, placing them between the WADERS or CLOVEN-FOOTED water-fowl and the web-footed. The Os-TRICH, and land-birds with wings useless for flight, I place as a distinct order. The TRUMPETER (Plophia Linnaei), and the BusTARDS, I place at the end of the GALLINACEOUS tribe. All are land-birds. The first multiparous, like the generality of the GALLI-NACEOUS tribe; the last granivorous, swift runners, avoiders of wet-places; and both have bills fomewhat arched. It must be confessed, that both have legs naked

ked above the knees, and the last, like the WADERS, lay but sew eggs. They seem ambiguous birds that have affinity with each order; and it is hoped, that each naturalist may be indulged the toleration of placing them as suits his own opinion. Before I conclude, let me not pass over the affistance received in some of my definitions from Mr Scopoli, an ornithologist of Carniola, who, in 1768, savoured the world with a most elaborate account of the birds that had fallen within his observation. Thus, I flatter myself, I have given every naturalist, I am indebted to, his due.

— Miserum est aliorum incumbere famae, Ne collapsa ruant subductis tecta Columnis.

TABLE

TABLE of ARRANGEMENT, with the correspondent ORDERS and GENERA in the Systema Natural of Linnaeus.

Order I. Rapacious. Accipitres Linnaei

II. Pies. Picae.III. Gallinaceous. Gallinae.

Division I. IV. Columbine. Passers.

V. Passerine. Passeres.

V. Passerine. Passeres.

VI. Struthious. & Gallinae.

Order VII. Cloven-footed or Waders.

or Waders.

Division II. VIII. Pinnated feet.

Grallae.

IX. Web-footed.

Anferes Grallae.

### DIV. I.

## ORDER I. RAPACIOUS.

1 Vulture Vultur 3 Owl Strix, 2 Falcon Falco 4 Shrike Lanius

## ORD. II. P I E S.

Pfittacus s Parrot II Crow Corvus Ramphastos 6 Toucan 12 Roller Coracias 7 Motmot Ramphastos 13 Oriole Oriolus 8 Hornbill Buceros 14 Grakle Gracula 9 Beefeater 15 Paradife Buphaga Paradifaea To Ani 16 Curucui Crotophaga Trogon

17 Barbet

17 Barbet	Bucco	23 Nuthatch	Sitta
18 Cuckoo	Cuculus	24 Tody	Todus
19 Wryneck	Junx	25 Bee-eater	Merops
20 Woodpecker	Picus	26 Hoopee	Upupa
21 Jacamar	Alcedo	27 Creeper	Certhia
22 Kingsfisher	Alcedo	28 Honeysucker	Trochilus

### ORD. HI. GALLINACEOUS.

29 Cock	Phasianus	34 Pheafant	Phafianu
30 Turkey	Melcagris	35 Grous	Tetrao
31 Pintado	Numida	36 Partridge	Tetrao
32 Curafio	Crax	37 Trumpeter	Pfophia
33 Peacock	Pavo	38 Buftard	Otis

## ORD. IV. . C O L U M B I N E.

39 Pigeon Columba

## ORD. V. PASSERINE.

40 Stare	Sturnus	48 Flycatcher	Muscicapa
41 Thrufh	Turdus	49 Lark	Alauda
42 Chatterer	Ampelis	50 Wagtail	Motacilla
43 Coly	Loxia, .	51 Warblers	Motacilla
44 Grosbeak	Loxia	52 Manakin	Pipra,
45 Bunting:	Emberiza	53 Titmoufe	Parus
46 Tanager	Tanagra	54 6wallow	Hirundo
47 Finch	Fringilla :	155 Goatfucker	Caprimulgus

## ORD VI. STRUTHIOUS

56 Doda or Didus 57 Oftrich Struthio

DIV,

## ( xxxi )

### D I V. II.

## ORD. VII. CLOVEN-FOOTED, or WADERS.

58 Spoonbill	Platalea	66 Snipe	Scolopar
59 Screamer	Palamedea	67 Sandpiper	Tringa
60 Jabiru	Mycteria	68 Plover	Charadrius
61 Boatbill	Cancroipa	69 Oystercatcher	Haematopus
62 Heron	Ardea	70 Jacana	Parra
63 Umbre	Scopus Briff.	71 Pratincole	Hirundo
64 Ibis	Tantalus	72 Rail	Rallus
65 Curlew	Scolopax	73 Gallinule	Fulica

### ORD. VIII. PINNATED-FEET.

74 Phalarope	Tringa	76 Grebe	Colymbus
75 Coot	Fulica		

## ORD. IX. W E B - F O O T E D.

77 Avoset	Recurvirostra	86 Gull	Larus
78 Courier	Currira Briff.	87 Petrel	Procellaria.
79 Flammant	Phænicopterus	88 Merganfer	Mergus
80 Albatross	Diomedea	89 Duck	Anas
81 Auk	Alca	90 Pinguin	5 Diomedez
82 Guillemot	Colymbus	90 1	? Phaeton
83 Diver	Colymbus	91 Pelecan	Pelecanus
84 Skimmer	Rhyncops	92 Tropic	Phaeton
S5 Tern .	Sterna	93 Darter.	Plotus

## Explanation of the Figure on the Title-Page:

- 1 Baftard wing, Alula Spuria.
- 2 Leffer coverts of the wings, Tectrices primae.
- 3 Greater coverts, Tectrices secundae.
- 4 Quill feathers, Primores.
- Secondary feathers, Secundariae.
- 6 Coverts of the tail, Uropygium.
- 7 Vent feathers, Criffum.
- 8 Tail feathers, Rectrices.
- 9 Scapular feathers.

### ERRATA.

Page 4. and 5. for Skrike, read Shrike.

16. for Kingfisher, read Kingsfisher.

- 25. line last, for tab. M. S. read tab. M. 5.
- 26. line 15. for strong, read strange.
- 27. line 1. for tab. IV. read tab. N.
- 31. line 16. for tab II. read tab. U.
- 32. line 5. for tab. IV. read tab. W.
- 44. line 10. read Briffon V.
- 49. line penult. for the, read that.
- 53. line 10. for tab. C. read tab. G.
- 54. line 10. for depressed, read compressed.

# DIV. I. LAND-FOWL:

## ORDER I.

# RAPACIOUS.

### ACCIPITRES Linnaei.

BILL, strait, hooked only at the end; edges cultrated, I. VULTURE, base covered with a thin skin.

Nostrils, differing in different species.

Tongue, large and fleshy.

HEAD, cheeks, chin, and often neck, either naked or covered only with down or short hairs; the neck retractile.

CRAW, often hanging over the breaft.

Legs and Feet, covered with great scales; the first joint of the middle toe connected to that of the outmost, by a strong membrane.

CLAWS, large, little hooked, and very blunt. INSIDES of the wings covered with down.

King of the Vultures. Bearded and crefted Vultures. \*\* \*\*\* \*\*\* \*\*\* \*\*\* EDW. II. CVI. CCXI.

The you of Aristotle, who mentions two species.

Vultur of Linnaeus, genus I. who enumerates VIII. fpecies. The Vultur and Vautour of Briffon, who describes XII species. M. de Buffon VIII. Mr Ray VIII.

No

No Vultures north of the Baltic, none in Great Britain.
Various species in Europe, Asia, Africa, and America, as low as Terra del Fuego.

A fluggish ungenerous race; prey oftener on dead animals, and even putrid carcases, than on living creatures. Their sense of smelling most exquisite. Collect in slocks from afar, directed to their prey by the sagacity of their nostrils. Fly slowly and heavily. Are most greedy, and voracious to a proverb. Are not timid, for they prey in the midst of cities, undaunted by mankind.

II, FALCON.

BILL, hooked; covered at the base with a naked membrane, or cere.

Nostrils, small, oval, placed in the cere.

TONGUE, large, fleshy, and often cleft at the end.

HEAD and NECK, covered with feathers.

LEGs and FEET, scaly; middle toe connected, from its first joint, to that of the outmost, by a strong membrane.

CLAWS, large, much hooked, and very sharp; that of the outmost toe the least.

The FEMALE larger and stronger than the Male.

Golden Eagle, Br. Zool. fol. tab. A. Falcon gentil. Br. Zool. IV. tab. I. II.

A carnivorous, rapacious race; not gregarious; quickfighted: Generally fly high. Build in lofty places; except a few species which nestle on the ground.

Eagles

Example.

Eagles and the larger kind of Falcons do not lay more than four eggs; fome of the leffer, such as the Kestril, lay fix or seven; the Eagles, properly so called, feldom more than two or three: Drink seldom; the juices of their animal-food preventing thirst. Capable of enduring very long abstinence. Very long lived. Are clamorous; their note puling and plaintive. Strike their prey with their seet. Their excrements white and sluid. Vomit up the indigested hair or feathers of their prey, in form of a round ball. 'Vary in the colour of their plumage at different ages; so the species are often unnecessarily multiplied by Ornithologists. Inhabit every Climate.

Mr Ray and M. Brisson separate the Eagles from the Falcons. The first has VIII species of Eagles, and XXV of Falcons or Hawks. The last, XV of Eagles, and XXXVII of Falcons. Linnaeus, who, with much propriety, places both in one genus, enumerates thirty-two. Mr Ray's division of the fluggish, and of the more active and generous, a very judicious one.

BILL, hooked; base covered with bristles; no cere. Nostrils, oblong.

III. OWL.

TONGUE, cleft at the end.

Exes, very large and protuberant, furrounded by a circle of feathers.

HEAD, very large and round; full of feathers.

EARS,

### RAPACIOUS.

EARS, large and open.

OUTMOST TOE, verfatile, or capable of being turned back, fo as to act with the back toe.

CLAWS, hooked and sharp.

Ex. Eagle Owl, Br. Zool. IV. tab. VI.

A nocturnal Bird, preys in the evening and by night; often flies along the ground in fearch of prey; carnivorous; quick of hearing; winks in the day; makes a hooting noise in the night; sometimes a squeaking. Snores loud. Builds in rocks, in hollow trees, or ruined edifices. Lays not more than five eggs. Inhabits every Climate.

Mr Ray divides this genus into two; those with and those without Horns; enumerates III species with, and VIII without. M. Brisson styles the first Asio, and has IX; the other Strix, and has XI species. Buffon XV.

end of the upper mandible a sharp process. No

NOSTRILS, round, covered with stiff bristles. TONGUE, jagged at the end.
Toes, divided to the origin.

TAIL, cuneiform.

Ex. Butcher Birds, Br. Zool. fol. tab. C. I. Br. Zool. IV. tab. VIII. Carnivorous or infectivorous; kill

kill fmall birds by strangling, or by crushing their skull with their bills, then pull them to pieces and stick the fragments on thorns; do the same by infects. Bold, noify, and querulous. Build in low bushes. Lay six eggs.

The genus that connects the rapacious Birds and Pies; agreeing with the first in the strength and crookedness of the bill, and its predatory life; with the last, in the form of the toes, the tongue, and tail. Nearly related to the Magpie: The French style it Pie-Griesche.

Different species found in the new and old world, and in all Climates, except within the Arctic circle.

The Butcher Birds or Skrikes of Mr Ray, who deferibes IV species. The Lanius of Linnaeus, who has XXVI species. The Lanius and Pie-Griesche of Brisson, who reckons up XXVI. Busson XIV.

I reject the compound name of Butcher-Bird, and retain the old English name of Skrike, from the noise.

ORDER

### ORDER II.

## P I E S.

### PIC Æ Linnaei.

V. PARROT. BILL, hooked from the base: Upper mandible moveable.

Nostrils, round, placed in the base of the bill.

TONGUE, broad, blunt at the end.

HEAD, large; Crown flat.

LEGS, short. Toes, two backward, two forward.

## Ex. Maccaw EDw. CLVIII. Parrot, CLXVI.

Gregarious, clamorous; the wild note loud and harsh. Very docile, imitative of sounds; imitates the human speech. Climbs by help of the bill and seet. Makes use of the seet as hands to convey meat to the mouth, turning the legs outward. Frugivorous: Can crack the hardest kernels. Breeds in hollow trees. Makes no nest: Lays two or three white eggs: Inhabits within the Tropics, Africa, Asia, and America; a sew are sound as far North as Carolina; and South as the Straits of Magellan.

Psittacus

Pfittacus of Linnaeus, and Briffon, IV. 182. The first has XLVII. the last XC. species.

BILL, most disproportionably large; convex and cari- VI. TOUCAN. nated at top, and bending at the end; hollow; very light, ferrated at the edges.

Nostrils, small and round, placed close to the head, and hid in the feathers.

TONGUE, long and narrow, feathered at the edges. Toes, two forward, and two backward.

### Toucans EDw. LXIV. CCXXXIX.

Ex.

A genus confined to America, within the Tropies. Feeds on fruits: Breeds in hollow trees. Is very noify; eafily made tame.

Mr Ray, misled by the name of Brasilian Pie, places it with the Magpie. Linnaeus calls it Rhamphastos, a Paupos, a broad sword, from the form of its bill. and has VIII species. Brisson, IV. 407. retains the Brafilian name Toucan, and has XII species.

BILL, strong, slightly incurvated; ferrated at the VII. MOT. edges.

Nostrils, covered with feathers.

TAIL, cuneiform: The two middle feathers much longer than the others: Near the ends quite destitute of webs. The webs at the ends subovated.

ToEs,

Toes, three before, one behind; the fore toes closely united almost their whole length.

Ex. Brasilian saw-billed Roller. Edw. CCCXXVI.

Inhabits S. America.

Ramphastos Momota of Linnaeus.

Momotus of Brisson, IV. 464. who has II species. I retain the Mexican name in Fernandez hist. av. Nov. Hisp. 52.

VIII. HORN BILL. Great bending BILL, oft-times a large protuberance refembling another bill on the upper mandible. Edges jagged.

Nostrils, fmall, round, placed behind the base of the bill.

TONGUE.

LEGS fealy: Toes, three forward, one backward:
The middle connected to the outmost, as far as the third joint; to the inmost, as far as the first.

Ex. Several Bills Edw. CCLXXXI. Wil. orn. tab. XVII.

A species with a horn pointing forward, and wattles under the chin, engraven in Moore's travels into the inland parts of Africa, p. 108.

Found in the Indian Islands.

Buceros of Linnaeus, a Bovs an ox, and regas a horn, from the form of the bill. Hydrocorax of Briffon.

II.

II. 565, or Water Raven, from its being supposed. to inhabit watry places.

Linnaeus has IV species. Brisson V.

Brit, strong, thick, strait, nearly square. Upper mandible a little protuberant; on the lower, a large angle.

IX. BEEF. EATER.

TONGUE.

Toes, three before, one behind. The middle connected to the outmost as far as the first joint.

Le pique Boeuf. Brisson II. tab. XLII.

Er.

Inhabits Senegal. Only one known species.

Buphaga of Linnaeus and Briffon II. 437. a Bous an ox, and payen, to eat, because it picks holes in the backs of cattle to get at the Larvae of infects deposited there.

BILL, compressed, greatly arched, half oval, thin, X. ANL cultrated at top.

Nostrils, round.

Toes, two backward, two forward.

Ten feathers in the TAIL.

Razor-bill'd Blackbird. Catesby Carol. app. III. the Ex. feet faultily expressed. Le Bout de Petun, Brisson IV. tab. XVIII.

B

Inha-

Inhabits South America: Within the Tropics.

because this genus feeds on ticks. Only II species.

Mr Ray places it at the end of the Parrots. I retain the Brasilian name Ani.

xi. CROW. Bill, strong, upper mandible a little convex. Edges cultrated.

NOSTRILS, covered with briftles reflected over them. TONGUE, divided at the end.

Toes, three forward, one backward; the middle joined to the outmost as far as the first joint.

Ex. Royston Crow, Br. Zool. fol. tab. D. I.

Different species found in every climate; clamorous; promiscuous feeders: Build in trees: Lay about fix eggs.

Corvus of Linnaeus, who mentions XIX species.

Brisson divides this genus into Coracias, or the Chough,

Corvus, or Crow, Pica, or Magpye, Garrulus, or Jay,

Nucifraga, or Nutbreaker, including XXIII species.

KII. ROL-LER. Bill., firait, bending a little towards the end, edges cultrated.

Nostrils, narrow and naked.

Toes, three forward; divided to their origin; one backward.

Blue

Blue Jay Edw. CCCXXVI. Roller Br. Zool. II. tab. Ex. XII. Europe, Afia, Africa, and the hot parts of America. A genus nearly related to the Crow. Thence Linnaeus calls it Coracias: A word of Aristotle's applied only to what we call the Cornish chough. Koganias, Poisinoguyxos, Hist. an. lib. IX. c. 24. Coracias of Linnaeus, who has VI species. Galgulus of Brisson, who has X species.

BILL, ftrait, conic, very fharp pointed, edges cultrated, inclining inwards. Mandibles of equal length.

XIII. ORIO-LE

Nostrils, fmall, placed at the base of the bill, and partly covered.

Tongue, divided at the end.

Toes, three forward, one backward: The middle joined near the base to the outmost one behind.

Redwing Starling Catefby Carol. 1. XIII. In general, inhabitants of America.

Ex.

A numerous race, gregarious, noify, frugivorous, granivorous, voracious: Often have penfile nefts.

Linnaeus enumerates, under the title of Oriolus, XX fpecies, but some belong to the Turdine or Thrush kind. Brisson II. 85. calls this genus IEterus, and has XXX species. The genuine Oriolus is a Thrush.

GRAGLE.

BILL, convex, thick, compressed a little on the fides, cultrated.

Nostrils, fmall, near the base of the bill; often near the edge.

TONGUE, entire; rather sharp at the end.

Toes, three forward, one backward; the middle connected at the base to the outmost.

CLAWS, hooked and sharp.

Ex. Mino, EDw. XVII. Chinese Starling. EDw. XIX. Inhabits Asia and America.

Gracula of Linnaeus, VIII species. IEterus, Pica, and Turdus of Brisson.

None of Linnaeus's species can be the Graculus of Pliny, or our Chough. For all his are Asiatic, African, or American.

XV. PARA-DISE. BILL, flightly bending. The base covered with velvet-like seathers.

NOSTRILS, fmall, and concealed by the feathers.

Tail, confisting of ten feathers; two very long naked shafts, springing from above the rump.

LEGS and FEET, very large and strong, three toes forward, one backward: The middle connected as far as the first joint of the exterior.

CLAWS, large, hooked, sharp.

Birds

Er.

Birds of Paradife, Epw. CX. CXI.

Floats on the air, and often flies swiftly backwards and forwards like the Swallow; often lights, and perches on trees; feeding on fruits, and even small birds.

Inhabits New Guinea and the Molucca isles. Paradisaea of Linnaeus, III species. Manucodiata of Brisson II. 130. only II species.

BILL, short, thick, and convex.
Nostrils, covered with stiff bristles.
Tongue.

Toes, two backward, two forward.

LEGS, feather'd down to the toes.

TAIL, confifts of twelve feathers.

Yellow bellied green Cuckow, Edw. CCCXXXI. Fasciated Couroucou. Ind. Zool. tab. V. Probably have the manners of the Woodpeckers. Inhabits South America.

Trogon of Linnaeus, III species. The same of Brisson IV. 164. has VI species. The reason for the name Trogon seems to be because Pliny has such a name after the Picus. As the genus is Brasilian, I retain the name of the Country.

BILL, strong, strait, bending a little towards the XVII. BAR, point. Base covered with strong bristles pointing downwards.

Nostrils, hid in the feathers. Tongue.

Toes,

XVI CURU-

-

Toes, two backward, two forward, divided to their origin.

TAIL, confishing of ten weak feathers.

Ex. Yellow Woodpecker, with red fpots, EDWARDS, CCCXXXIII.

Inhabits South America and the Indian Islands.

Bucco of Linnaeus and Briffon IV. 91. The first has I species. The last V. Briffon styles it Bucco from the fullness of the cheeks, Barbu from its bristles, a fort of beard, from which I form the generical name Barbet.

NOIII. CUCKOO.

BILL, weak, a little bending.

Nostrils, bounded by a fmall rim.

Tongue, fhort, pointed.

Toes, two forward, two backward.

Tail, cuneated; confifts of ten foft feathers.

Ex. Cuckoo, Br. Zool. fol. tab. G. G. I. Br. Zool. IV. tab.
LV.

Inhabits every climate.

Cuculus of Linnaeus and Brisson, IV. 104. the one has XXII species. The other XXVIII.

The xoxxve, and Coccyx of the Antients, a word formed from the found of the European species. Cuculus is only used in an opprobrious sense.

XIX. WRY-

XX. WOOD-

BILL, weak, flender, pointed.

Nostries, large and oval, near the ridge of the bill. Tongue, very long, cylindric, very flender, and terminated by a hard point, miffile.

Toes, two forward, two backward.

TAIL, confifting of ten even and foft feathers.

Wryneck, Br. Zool. fol. tab. G. Br. Zool. IV. tab. LV. Ex. Its manners, vide Br. Zool.

Inhabits Europe and Bengal. Only one species known.

1078 of Aristotle, Jynx of Pliny, Linnaeus and Brisfon, vol. iv. 3.

BILL, strait, strong, angular; cuneated at the end.

Nostrils, covered with briftles reflected down.

TONGUE, very long, flender, cylindric, bony, hard, and jagged at the end, missile.

Toes, two forward, two backward.

Tail, confifting of ten hard, stiff, sharp pointed feathers.

Woodpeckers Br. Zool. fol. tab. E. Br. Zool. IV. tab. Ex. XII.

The manners, vide Br. Zool.

Inhabits all the Continents.

Δευοκολασίης or Oak-rapper of Aristotle, Picus martius of Pliny, Picus of Linnaeus and Brisson, IV. 8. Linnaeus has XXI. Brisson XXXI species.

XXI. JACA MAR. BILL, long, strait, sharp pointed, quadrangular.

TONGUE, short.

LEGS, feathered before to the Toes.

Toes, disposed two forward, two backward. The two foremost closely connected together.

Ex Jacamiciri EDw. CCCXXXIV.

Inhabits S. America.

Alcedo Galbula of Linnaeus. Galbula of Brisson, IV. 86. who has II species. I retain his name from the Brasilian Jacamiciri.

XXII. KING-FISHER. BILL, long, strong, strait, sharp pointed. Nostrils, small, and hid in the feathers.

TONGUE, short, broad, sharp pointed.

Legs, short; three toes forward, one backward:
Three lower joints of the middle toe joined closely to those of the outmost.

Ex. Kingfisher Br. Zool. fol. tab. I. Br Zool. IV. tab. LVI.

Found in all the quarters of the World. Flies swiftly, strong, and direct. All the species do not haunt rivers, nor prey on fish. Adxour of Aristotle, the Halcyon of Pliny, Alcedo of Linnaeus, Ispida of Brisson, IV 471. the first gives us XV species. Brisson XXVI.

BILL, strait; on the lower mandible a small angle.

Nostrils, small, covered with feathers reslected over them.

XXIII. NUT-HATCH.,

TONGUE, fhort, horny at the end, and jagged.

Toes, three forward, one backward. The middle toe joined closely at the base to both the outmost. Back toe as large as the middle toe.

Its manners, vide Br. Zool.

Nuthatch Br. Zool. fol. tab. H. Br. Zool. IV. tab. LVI.

Ex.

Sitta of Linnaeus and Brisson III. 588. he describes V species, Linnaeus II. Aristotle's Grin not easily determinable.

BILL, thin, depressed, broad, base beset with bristles. Nostrils, small.

XXIV. TODY.

TONGUE.

Toes, three forward, one backward, connected like those of the Kingfisher.

Green-sparrow, EDw. CXXI.

Ex.

Inhabits the hot parts of America.

Todus of Linnaeus and Briffon IV. 528. who enumerate II species. The name first given it by Dr Brown, I suppose, from Todi, small birds.

C

XXV. BEE EATER. Bill, quadrangular, a little incurvated, sharp pointed.

Nostrils, fmall, placed near the base.

TONGUE, slender.

Toes, three forward, one backward: The three lower joints of the middle toe closely joined to those of the outmost.

Ex. Indian Bee-eater, EDW. CLXXXIII.

Feeds on Bees, which it catches in its flight; from which the English name.

Inhabits Southern Europe, Afia, Africa, and America.

Merops of Linnaeus, Apiaster of Brisson IV. 532. The first has VII species, the last XIII.

XXVI. HOOPOE. BILL, long, flender, and bending.

Nostrils, fmall, placed near the base.

TONGUE, short, sagittal.

Toes, three forward, one backward, middle toe clofely united at the base to the outmost.

Ex. Hoopoe, Br. Zool. fol. tab. L. Br. Zool. IV. tab. LVIII.
Inhabits Europe and Afia.

Upupa of Linnaeus. Upupa and Promerops of Briffon, II 456. 460. Linnaeus has III species. Briffon I of the sirft, V of the last.

XXVII.

Ex.

CREEPER.

BILL, very flender, weak, incurvated.

Nostrils, fmall.

TONGUE, not fo long as the bill; hard, and fharp at the point.

Toes, three forward, one backward; large back toe, and long hooked claws.

Creeper, Br. Zool. fol. tab. K. Br. Zool. IV. LVII. according to its name, creeps up and down the trunks and branches of trees, feeding on infects, their eggs and larvae.

Inhabits Europe, Asia, Africa, and America.

Certhia of Linnaeus and Briffon, III. 602. the first has XXV species, the last XXXII.

BILL, slender and weak; in some strait, in others incurvated.

XXVIII. HONEY-SUC-KER.

Nostrils, minute.

Tongue, very long, formed of two conjoined cylindric tubes; miffile.

Toes, three forward, one backward.

TAIL, confifts of ten feathers.

Long tailed red humming bird, EDw. XXXII. which is the fort with crooked bills, called by Briffon, Polytmi.

Ex.

White bellied humming bird, EDW. XXXV. or the kind with strait bills: The Mellisuga of Brisson.

Feeds

Feeds on the fweet juices of flowers, which it fucks out with its tubular tongue, hanging in the air on its wings.

Inhabits America, especially the warm parts: A numerous genus.

Trochilus of Linnaeus, Polytmus and Mellifuga of Briffon. Linnaeus has XXII species. Briffon XVI of the Polytmus, XX of the Mellifuga. The old English name was Humming-bird; which I now charge to HONEY-SUCKER.

ORDER

### ORDER III.

## GALLINACEOUS.

- Heavy bodies, short wings, very convex; strong, arched, short bills: The upper mandible shutting over the edges of the lower. The sless delicate and of excellent nutriment; strong legs; toes joined at the base, as far as the first joint, by a strong membrane. Claws broad, formed for scratching up the ground, More than twelve seathers in the tail.
- Granivorous, feminivorous, infectivorous, fwift runners, of fhort flight; often polygamous, very prolific, lay their eggs on the bare ground. Sonorous, querulous, and pugnacious.
- OR, with bills flightly convex, granivorous, feminivorous, infectivorous, long legs naked above the knees:

  The genus that connects the land and the waterfowl. Agreeing with the cloven-footed waterfowl in the length and nakedness of the legs, and the fewness of its eggs: Disagreeing in place, food, and form of bill, and number of feathers in the tail.

XXIX. COCK. BILL, very convex, fhort and ftrong.

Nostrils, bodied in a fleshy substance.

TONGUE, cartilaginous, sharp, entire.

HEAD, adorned with a comb, or elevated ferrated

Spurs on the legs.

Tail, confifting of fourteen feathers; that of the male, fickle-shaped.

Ex. To be found in every farm-yard.

Its native country India and its ifles.

Domesticated every where.

Phasianus of Linnaeus, who classes it with the Pheafant, and has VI species. Gallus of Brisson, I. 165. who enumerates V, but they are only varieties.

XXX. TUR- BILL, convex, fhort and ftrong.

Nostrils, open, pointed at one end, lodged in a membrane.

Tongue, floped on both fides towards the end, and pointed.

HEAD and NECK, covered with a naked tuberofe flesh, with a long fleshy appendage hanging from the base of the upper mandible.

TAIL, broad, consists of eighteen feathers, extensible.

Ex. Unknown to none.

Native

Native of North-America only: Domesticated in most countries.

Meleagris of Linnaeus and Gallo-pavo of Briffon, I. 158. Linnaeus has III Briffon II species.

BILL, convex, strong, and short; at the base a carun- XXXI. PINculated cere in which the

NOSTRILS are lodged.

HEAD and NECK, naked, flightly befet with briftles.

A Horn, reflected and large, on the head.

LONG POINTED WATTLES, hanging from the cheeks.

TAIL, fhort, pointing downwards.

Too common to need a reference.

Ex.

Its native place Africa.

Numida of Linnaeus, who has I species. Meleagris of Brisson, I. 176. who has likewise I. He calls it in French, La Peintade, a name I retain.

BILL, convex, strong, and thick, the base covered with XXXII. CUa cere, often mounted by a large nob.

Nostrils, fmall, lodged in the cere.

HEAD, fometimes adorned with a crest of feathers, curling forwards.

TAIL, large, strait.

Curaffo, and Cushew-bird, EDw. CCXCV.

Ex.

Inha-

Inhabits South America.

Crax of Linnaeus and Brisson, I. 296. But the last classes them with the Pheasant, and has VI species, Linnaeus III.

XXXIII.PEA BILL, convex, flrong, and fhort.
Nostrils, large.

HEAD, fmail, crested.

SPURS on the legs.

Tail, very long, broad, expansible, confisting of a double range of feathers adorned with rich ocellated spots.

Ex. Common Peacock, frequent in most parts. And the Peacock Pheasant, EDw. LXVII.

The native place India, Japan, and China.

Pavo of Linnaeus, and Phafianus of Briffon, I. 281.

who reckons IV species of Peacocks, Linnaeus III.

PHEASANT.

BILL, convex, fhort, and ftrong. Nostrils, fmall.

TAIL, very long, cuneiform, bending downwards.

Ex. Painted Pheafant, EDW. LXVIII.

Inhabits Afia and South America.

Phasianus

Phafianus of Linnaeus and Briffon I. 262. who has (including Peacocks and Curaffoas,) XVI species. Linnaeus VI.

BILL, convex, strong, and short.

GROUS

A NAKED scarlet skin above each Eye.

Nostrils, small, and hid in the feathers. Tongue, pointed at the end.

LEGS, strong, feathered to the toes; and sometimes to the nails. The toes of those with naked seet pectinated on each side.

Grous, Br. Zool. fol. tab. M. 3. Br. Zool. IV. tab. Ex. XIII.

Inhabits the mountains or woods of Europe, northern and eastern Asia and North America.

TETRAO pedibus hir/utis of Linnaeus, who has IX species. Lagopus of Briffon I. 181. who has XII.

BILL, convex, strong, and short.

XXXVI. PAR. TRIDGE.

No NAKED Skin above the EYES.

Nostrils, covered above with a callous prominent rim.

Legs, naked, tetradactylous. Exception, two species of Quails.

TAIL, fhort.

Partridge, Br. Zool. fol. tab. M. S.

Ex.

D

Inhabits

Inhabits the cultivated parts of the world.

TETRAO pedibus nudis of Linnaeus, who has XI species. Perdix of Briffon, who has XXI.

TRUMPE-TER. BILL, fhort, upper mandible a little convex.

Nostrils, oblong, funk, and pervious.

Tongue, cartilaginous, flat, torn, or fringed at the

LEGS, naked a little above the knees.

Toes, three before; one small behind, with a round protuberance beneath the hind toe, which is at a small distance from the ground.

Ex. Grus Pfophia, Pallas spicil. fasc. IV. tab. I.

Inhabits South America; lives in the woods; feeds on the fruit that fall down. Does not perch. Makes a strong noise with its mouth, which it answers by a different noise from its belly, as if it came from the anus. Lays many eggs.

Psophia of Linnaeus, from ψοφοω strepitum edo. Perdix of Brisson I. 227. only I species.

XXXVIII. BUSTARD. BILL, a little convex.

Nostrils, open, oblong.

TONGUE, floping on each fide near the end, and pointed.

Legs, long, and naked above the knees. Togs, only three; no back toe.

BUSTARD,

BUSTARD, Br. Zool. fol. tab. IV. Br. Zool. IV. tab. Ex. LIX.

Inhabits Europe and Afia.

Otis of Linnaeus and Brisson V. 18. one has IV. the other III species. De Busson. Pliny tells us that Otis was the Greek name, that the Spanish was Sarda.

ORDER

## ORDER IV.

## COLUMBINE.

BILL, weak, slender, strait at the base, with a soft protuberant substance, in which the nostrils are lodged. Tongue, entire: Legs, short, and red; Toes, divided to the origin. Swift and distant slight, walking pace. Plaintive note, or cosing, peculiar to the order. The male inslates or swells up its breast in courtship. Female, lays but two eggs at a time. Male and semale sit alternately; and feed their young, ejecting the meat out of their stomachs into the mouths of the nesslings. Granivorous, seminivorous. The ness simple, in trees, or holes of rocks, or walls.

There is only one genus of this order; it is therefore needless to repeat the characters.

Ex. A well known bird.

Inhabits all the Continents.

Columba of Linnaeus and Briffon, I. 67. Linnaeus has XL fpecies, Briffon XLIV.

ORDER

## ORDER V.

## PASSERINE.

Bodies, from the fize of a Thruth, to that of the golden crested Wren. The enliveners of the woods and fields; sprightly and much in motion; their nests artificial, monogamous, baccivorus, granivorous, seminivorous, insectivorous; their usual pace, hopping; of a few, running. Short slyers, except on their migrations only. All have three toes before, one behind.

BILL, strait, depressed.

STARK

NOSTRILS, guarded above by a prominent rim. Tongue, hard and cloven.

ToEs, the middle joined to the outmost as far as the first joint.

Stare, Br. Zool. fol. tab. P. II. Br. Zool. IV. tab. Ex. XLI.

Sturnus of Linnaeus and Briffon II. The first has V species, the last IV.

XLI. THRUSH. BILL, strait, obtufely carinated at top, bending a little at the point; and slightly notched near the end of the upper mandible.

Nostrils, oval and naked.

TONGUE, flightly jagged at the end.

Toes, the middle joined to the outmost as far as the first joint; back toe very large.

Ex Fieldfare, Br. Zool. fol. P. II. Blackbirds, Br. Zool. IV. LX.

Turdus of Linnaeus and Briffon II.
Linnaeus has XXVIII species, Briffon LXIV.

XLII. CHATTER-ER. BILL, firait, a little convex above, and bending towards the point; near the end of the upper mandible, a fmall notch on each fide.

Nostrils, hid in briftles.

MIDDLE TOE, closely connected at the base to the out-

Ex. The Pompadour, Enw. CCCXLI.

Ampelis of Linnaeus (from apasios, a vine); because the Bohemian chatterer, the bird he places at the head of this genus, feeds sometimes on grapes. He reckons VII species. The Cosinga of Brisson II. 339. an American name. He has X species. Inhabits Europe and America.

BILL, convex above, ftrait beneath; very ftrong and XLIII. COLY.

Nostrils, small, placed at the base, and hid by the feathers.

TONGUE, not the length of the bill, laciniated at the end.

Toes, divided to their origin.

Le Coliou, Brisson III. part I. tab. XVI. fig. 2.
Inhabits Africa.

Ex.

Linnaeus includes this among his Loxiae. Briffon III. part I. 304. calls it Colius.

Bill, strong, and convex above and below, very thick at the base.

XLIV. GROSBEAK.

Nostrils, small and round.

TONGUE, as if cut off at the end.

Grosbeak, Br. Zool. fol. tab. II. Green Bulfinch, Br. Zool. IV. tab. LXIV.

Ex.

Inhabits every Continent.

Loxia of Linnaeus; including the Coccothraustes of Brisson III. part I. 219. the Colius 304. the Pirrhula 308. and Loxia or Cross-bill 329. Linnaeus has XLVII species; Brisson in all XXXI. Loxia is the proper name of the Cross-bill, from 2005, oblique.

32

XI.V. BUNTING. BILL, strong, and conic, the sides of each mandible bending inwards; in the roof of the upper mandible, a hard knob, of use to break and comminute hard seeds.

Ex. Bunting, Br. Zool. fol. tab. IV.
Inhabits Europe, Asia, and America.

Emberiza of Linnaeus and Brisson III. part I. 257. The first has XXIV species, the last XV. The name is derived from Embritz, or Emmeritz, its German name. Vide Gesner, av. 653.

XLVI. TANAGER. BILL, conoid, a little inclining towards the point, upper mandible flightly ridged, and notched near the end.

er. Red breafted Blackbird, EDw. CCLXVII. and greater Bulfinch LXXXII.

Inhabits N. and S. America, most numerous in the latter.

Tanagra of Linnaeus and Tangara of Brisson III.

part I. 3. Linnaeus reckons XXIV species, Brisson XXX.

The name Tangara is Brafilian.

BILL, perfectly conic, flender towards the end, and very flarp pointed.

Goldfinch, Br. Zool. fol. tab. V. Sparrows, Br. Zool. IV. tab. LXXV.

Ex.

Inhabits all the quarters of the world.

Fringilla of Linnaeus, who enumerates XXXIX species. Passer of Brisson III. part I. 71. who has LXVII. species.

BILL, flatted at the base, almost triangular, notched at the end of the upper mandible, and beset with bristles.

XLVIII. FLYCATCH-

Nostrils,

Tongue,

Toes, divided as far as their origin;

Flycatcher, Br. Zool. fol. tab. P. II.

Ex.

Inhabits all the quarters of the world.

Muscicapa of Linnaeus and Brisson II. the first has XXI species; the last XXXVIII.

E

XLIX. LARK. BILL, strait, stender, bending a little towards the end, sharp pointed.

Nostrils, covered with feathers and briftles.

TONGUE, cloven at the end.

Toes, divided to the origin; claw of the back toe very long, and either strait or very little bent.

Ex. Larks, Br. Zool. fol. tab. S.

Inhabits Europe, Asia, Africa, and America.

Alauda of Linnaeus and Briffon III. part II. 335. Linnaeus has XI species, Briffon XII.

L. WAG-

BILL, weak and flender.

Nostrils.

TONGUE, lacerated at the end.

LEGS, flender.

Toes.

Frequent the sides of brooks, their tail much in motion; their pace running; seldom perch; their nest on the ground.

Ex. Wagtails, Br. Zool. IV. tab. LXII.

After the example of Scopoli, I separate these, the genuine Motacillae, from the other soft-bill'd small birds, which he stiles Sylviae. They are included among the Motacillae of Linnaeus, and Ficedulae of Brisson III. part. II. 369.

BILL, flender and weak. Nostrils, fmall, funk. Tongue, cloven.

LI. WARE-LERS.

FEET, the exterior toe joined at the under part of the last joint to the middle toe.

Red breaft, Br. Zool. fol. tab. S.

Ex.

Inhabits all parts of the world except the Arciic: The most melodious of the smaller genera: Insectivorous, seminivorous, delight in woods and bushes. Their pace hopping. Motacilla of Linnaeus, Ficedula of Brisson III. part II. 369. Linnaeus has XLIX species, Brisson LXXIII.

BILL, fhort, ftrong, and hard, flightly incurvated. Nostrils, naked.

LII. MANA-KIN.

TONGUE.

Toes, the middle closely united with the outmost as far as the third joint.

TAIL, short.

Manakins, EDW. CCLXI. Inhabits South America only.

Ex.

Pipra of Linnaeus and Manacus of Brisson IV. 442. Linnaeus enumerates XIII species, Brisson XIII.

Pipra, a πιπεα, a certain bird, mentioned by Aristotle, hist. an. lib. IX. C. I. Manacus from the Dutch, Manakin, the name they bear in Surinam.

LIII. TIT- BILL, strait, a little compressed, strong, hard, and sharp rointed.

Northies, round, and covered with briftles reflected over them.

Tongue, as if cut off at the end, and terminated by three or four briftles.

Tces, divided to their origin, back toe very large and firong.

1.XVIII. a reffles flitting race, most prolific; infectivorous, germinivorous, pugnacious.

Inhabit Europe and America.

Parus of Linnaeus and Briffon III. part II. 539. Linnaeus has XIV. Briffon XVIII species. Parus, from Pario, because it lays many eggs.

LIV. SWAL- BILL, short, broad at the base, small at the point, and LOW.

Nostrils, open.

Tongue, fhort, broad, and cloven.

LEGS, fhort.

TAIL, forked; Wings, long.

Inhabits the universe, even as far as Hudson's Bay.

Ex. Swallow, Br. Zool. fol. tab. Q. Br. Zool. IV. tab. IX fwift, much on wing, infectivorous, migratory or torpid during winter, twittering, forerunners of fummer.

Hirundo of Linnaeus and Briffon II. 485. Linnaeus has XII species, Briffon XVII.

BILL, very fhort, hooked at the end, and very flightly LV. GOATnotched near the point.

Nostrils, tubular, and a little prominent.

Mouth, vastly wide: On the edges of the upper part, between the bill and the eyes, seven stiff bristles.

TONGUE, fmall, entire at the end.

LEGS, fhort, feathered before as low as the toes.

Toes, joined by a strong membrane as far as the first joint. Claw of the middle toe broad-edged and ferrated.

TAIL, confifts of ten feathers, and is not forked.

Inhabits Europe, Asia, and America.

Flies by night, infectivorous, fonorous, migratory. Has much of the nature of the Swallow.

Coatfucker, Br. Zool. fol. tab. R. Br. Zool. IV. tab. Ex. LXIII. Caprimulgus of Linnaeus, Caprimulgus and Tette-chevre of Brisson II. 470. Linnaeus has only II species, Brisson VI. Caprimulgus and Αιγοθηλης of the Ancients, from a vulgar notion that they sucked the teats of Goats.

ORDER

### ORDER VI

# STRUTHIOUS.

Very great and heavy bodies. Wings imperfect; very fmall, and useless for slight; but assistant in running. Flesh coarse, and hard of digestion.

STRUTHIOUS is a new coined word to express this order; for these birds could not be reduced to any of the Linnacan divisions.

LVI. DODO. BILL, large, bending inward in the middle of the upper mandible, marked with two oblique ribs, and much hooked at the end.

Nostrils, placed obliquely near the edge, in the middle of the bill.

LEGS, short, thick, feathered a little below the knees. Toes, three forward, one backward.

Ex. Dodo EDw. CCXCIV.

Inhabits the isles of France and Bourbon.

Didus of Linnaeus, and Raphus of Briffon, V. 14. only I species.

BILL, small, sloping, a little depressed. Small wings, unfit for slight. LEGS, long, strong, naked above the knees.

LVII. OSTRICH

Oftrich and Caffowary, Wil. Orn. tab. XXV.

Ex.

Inhabits Afia, Africa, and the lower parts of S. America.

Struthio of Linnaeus and Briffon V. 3. III species.

ORDER

# DIV. II. WATER-FOWL.

# ORDER VII. With CLOVEN FEET. VIII. With PINNATED FEET.

### IX. With WEBBED FEET.

Most migratory, shifting from climate to climate, from place to place, in order to lay their eggs, and bring up their young in full security; the thinly inhabited north their principal breeding place; returning at stated periods, and, in general, yielding to mankind delicious and wholesome nutriment. All the Clovenfooted, or mere waders, lay their eggs on the ground. Those with pinnated feet form large nests either in the water or near it. From the first, we must except the Heron and the Night-Heron\*, which build in trees; from the last the Phalaropes, whose method of nestling we are ignorant of:

All the web-footed fowl, either lay their eggs on the ground, or on the shelves of losty cliffs; and none perch, except the Corvorant, Shugg, and one or two species of Ducks.

All

<sup>&</sup>quot; Night Raven, Raii Syn. av. 99.

All the cloven-footed water-fowl have long necks and long legs, naked above the knees, for the convenience of wading in waters in fearch of their prey. Those that prey on fish have strong bills. Those that fearch for minute infects, or worms that lurk in mud, have slender weak bills, and olfactory nerves of most exquisite sense; for their food is out of sight,

As the name implies; their toes are divided, some to their origin; others have, between the middle toe and outmost toe, a small membrane as far as the first joint. Others have both the exterior toes connected to the middlemost in the same manner; and, in a few, those webs reach as far as the second joint; and such are called Semipalmati.

Of the web-footed fowl, the Flamingo, the Avosetta, and Courier, partake of the nature of both the cloven and web-footed orders; having long legs, naked above the knees, and long necks. The other web-footed water fowl being very much on the element, have short legs, placed far behind, and long necks; and, when on land, (by reason of the situation of their legs), an aukward wadling gate.

The make of the cloven-footed water-fowl is light, both as to skin and bones; that of the web-footed, strong.

F

ORDER

### ORDER VII.

## CLOVEN-FOOTED.

LVIII. SPOON-BILL.

BILL, long, broad, flat, and thin, the end widening into a circular form like a spoon.

Nostrils, small, placed near the base.

TONGUE.

FEET, semipalmated.

Ex. Spoon-bill, Wil. orn. tab. 52.

Inhabits Europe and S. America.

Breeds in high trees, feeds on fish, and water-plants; can swim.

Platalea of Linnaeus, and Platea of Briffon V. 351. Each have III species.

LIX. SCREAMER. BILL, bending down at the point, with a horn, or with a tuft of feathers erect near the base of the bill.

Nostrils, oval.

TONGUE.

Toes, divided almost to their origin, with a very small membrane between the bottoms of each.

Anhi-

Anhima Marcgrave 215.

Er.

Inhabits S. America.

Palamedea of Linnaeus, Anhima and Cariama of Brisson
V. 518. I call it Screamer, from the violent noise it makes. Only two species.

BILL, long, and large, both mandibles bending up- LX. JABIRU: wards; the upper, triangular.

Nostrils, fmall.

No Tongue. Marcgrave.

Toes, divided.

Jabiru guacu Marcgrave 200. 201.

Ex.

Inhabits S. America.

Mysteria of Linnaeus from Muxtue, a fnout. Ciconia of Briffon V. 371. only one species.

BILL, broad, flat, with a keel along the middle, LNI. BOAT-like a boat reversed.

Nostrils.

TONGUE.

Toes, divided.

Tamatia Marcgrave 208. 209.

Es.

Inhabits S. America.

Cancroma of Linnaeus, from their feeding on crabs, who has II species; the Cochlearius of Brisson V. 206. who has the same number.

BILL;

#### 44 CLOVEN-FOOTED.

LXII. HERON. BILL, long, strong, sharp pointed.

Nostrils, linear.

TONGUE, pointed.

Toes, connected as far as the first joint by a membrane, back toe large.

Ex. Crested Heron, Br. Zool. fol. tab. A. Female Heron, Br. Zool. II. tab. VI.

Inhabits every continent.

Ardea of Linnaeus. Ardea, Ciconia, and Balearica of Briffon 361. 391. 511. Linnaeus has XXVI species, Briffon LX.

LXIII.
UMBRE.

BILL, strong, thick, strait, compressed, the upper mandible composed of several pieces.

Inhabits Senegal.

Scopus of Brisson, who has a single species. He calls it Scopus, from exic, a shade, and Ombrette from the general deep brown of its plumage.

LXIV. IBIS. BILL, long, thick at the base, wholly incurvated, eyes lodged in the base.

FACE, naked.

Nostrils, linear.

TONGUE,

TONGUE, fhort and broad.

Toes, connected at the base by a membrane.

Red Curlew Catefby Carol. I. LXXXIV.; white headed Ex.
Ibis Ind. Zool. tab. X.

Inhabits Europe, Afia, and America.

Tantalus of Linnaeus, Numenius of Briffon V. 311. Linnaeus has VII species. Briffon mixes them with the genuine Curlews, and has in all XIV.

BILL, long, slender, incurvated.

FACE, covered with feathers.

Nostrils, linear, longitudinal, near the base.

TONGUE, short, and sharp-pointed.

Toes, connected as far as the first joint by a strong membrane.

Curlew Br. Zool. II. tab. VIII.

Ex.

LXV. CUR-

Inhabits Europe and America.

Scolopax of Linnaeus, Numenius of Briffon V. 311. Linnaeus has IV species of genuine Curlews.

BILL, two inches long and upwards; flender, LXVLSNIPE. ftrait, and weak.

Nostries, linear, lodged in a furrow.

TONGUE, pointed, flender.

Toes, divided, or very flightly connected; back toe very small.

Woodcock,

Ex. Woodcock, Br. Zool. IV. tab. XIV.

Inhabits Europe, Asia, and America.

Scolopax of Linnaeus, Limosa and Scolopax of Brisson V. 261. 292. Linnaeus reckons XIV species, exclusive of the Curlews. Brisson XIII. Woodcock being the name of a species inhabiting woods; I change it to the more comprehensive one of Snipe, which signifies a long bill.

LXVII. SANDPIPER.

BILL, strait, slender, and not an inch and a half long. Nostrils, small.

TONGUE, flender.

Toes, divided; generally the two outmost connected at bottom by a small membrane.

Ex. Purr Br. Zool. IV. tab. XVI.

Tringa of Linnaeus; Vanellus, Arenaria, Glareola, and Tringa of Briffon V. 94. 132. 141. 177. including XXXV species.

LXVIII.

BILL, strait, as short as the head.

NOSTRILS, linear.

TONGUE.

ToEs. Wants the back toe.

Ex. Dotterel Br. Zool. IV. tab. LXXIII.

Charadrius

Charadrius of Linnaeus, Pluvialis of Brisson V. 43. and Himantopus and Ostralega 33. and 38. Linnaeus has XII Ch. Brisson XV. Pl. II. Himan.

BILL, long, compressed, the end cuneated.

Nostrils. linear.

TONGUE, scarce a third the length of the bill.

Toes, only three; the middle joined to the exterior by a strong membrane.

Sea-Pie, Br. Zool. fol. tab. D. 2.

Ex.

Inhabits Europe and N. America. The bill calculated to raise limpets, oysters, and other shells from the rocks.

Haematopus of Linnaeus, Ostralega and L'Huitrier of Brisson V. 38. Only one species.

BILL, flender, sharp pointed; thickest towards the end; the base carunculated.

LXX. JACANA.

Nostrils, fhort, fub-ovated, placed in the middle of the bill.

TONGUE.

WINGS, armed on the front joint with a fharp, fhort four.

Toes, four on each foot, armed with very long and ftrait sharp pointed claws.

Spur-

#### Ex Spur-winged water Hen. EDW. CCCLVII.

Parra of Linnaeus, Jacana of Brisson V. 122. Linnaeus has only III. genuine species, Brisson V. I retain the Brasilian name Jacana; not the Impios PARRAE recinentis omen of Horace, which was probably some small bird. Vide Pliny, lib. X. c. 33.

LXXI. PRATIN-COLE. BILL, fhort, firong, firait, hooked at the end.

Nostrils, near the base, linear, oblique.

Tongue.

Toes, long, flender, base of each connected by a very small membrane.

TAIL, forked; 12 feathers.

Ex. Pratincola, Kramer Austr. 382.

Inhabits Southern Europe.

Pratincola, or inhabitant of meadows, a name given it by Dr Kramer, and adopted by me; placed by Linnaeus with the Hirundo, by Briffon among his Glareolae.

LXXII. RAIL. BILL, flender, a little compressed, and slightly incurvated.

Nostrils, fmall.

TONGUE, rough at the end.

Bony, much compressed.

TAIL, very short.

Water-

Ex.

Water-Rail, Br. Zool. IV. tab. LXXIV.

Inhabits Europe, Afia, and America.

Rallus of Linnaeus, who places it among others very different, such as the Land-Rail, &cc. Briffon calls the genus Rallus, but mixes with it others of the next genus.

BILL, thick at the base, slopping to the point; the upper mandible reaching far up the forehead, and not corneous.

CALLINULE

Body, compressed. WINGS, short and concave.

Toes, long, divided to their origin.

TAIL, short.

Water-Hen, Br. Zool. fol. tab. L. I. Br. Zool. IV. tab. Ex. LXXVI.

Inhabits Europe, Afia, and America.

Fulica of Linnaeus, Gallinula VI. and Porphyrio V. 522. of Brisson, who has III species of the first, and X of the last. In Bill and Legs, the Land-Rail agrees with this genus; but, with us, differs in its manners, by residing in dry places. But, as it migrates at approach of winter, it may, in warmer climates during the season, inhabit senny tracts, to which the form of its legs are adapted.

ORDER

## ORDER VIII.

## With PINNATED FEET.

LXXIV. PHALA-ROPE. BILL, strait, slender.

Nostrils, minute.

TONGUE.

·Body and Legs, in every respect formed like the Sand-piper.

Toes, furnished with scalloped membranes.

Ex. Scallop-toe'd Sand-piper, Br. Zool. fol. tab. E. Br. Zool. IV. tab. LXXV.

Its manners, &c. unknown.

Linnaeus places it among the Tringae; Brison very judiciously forms a new genus under the name of Phalaropus, from the scallops on the toes like the Φαλαερις, or Coot.

LXXV.COOT. BILL, fhort, ftrong, thick at the base, sloping to the end; the base of the upper mandible rising far up the forehead; both mandibles of equal length.

Nos-

Nostrils, incline to oval, narrow, fhort.

TONGUE.

Body, compressed. WINGS, short.

Toes, long, furnished with broad scalloped membranes.

TAIL, fhort.

Coot, Br. Zool. fol. tab. F. Br. Zool. IV. tab. LXXVI. Ex.

Inhabits Europe, Asia, and Africa.

Continues much on the water, makes a large nest of water-plants, lays six or seven eggs. In winter, ofttimes are seen in great slocks on arms of the sea.

Fulica of Linnaeus, and Briffon VI. 23. Linnaeus has only II species, for he mixes other birds with them. Briffon has II.

BILL, strong, slender, sharp pointed. Nostrils, linear.

TONGUE, flightly cloven at the end.

Body, depressed, feathers thick-set, compact, and very smooth and glossy.

TAIL, none. WINGS, short.

Legs, placed very far behind, very thin, or much compressed; doubly serrated behind.

Toes, furnished on each side with a broad, plain membrane.

GREBE,

LXXVI.

Ex. Grebe, Br. Zool. fol. tab. K. Br. Zool. IV. tab. XVII.

Congenerous birds found in most countries. Linnaeus mixes his birds of this genus with web-sooted birds, such as Divers and Guillemots, by the general name of Colymbi. Brisson VI. 33. very judiciously separates them, and has under the same name XI species.

ORDER

## ORDER IX.

## WEB-FOOTED.

\*

#### With long LEGS,

BILL, long, flender, very thin, and bending confiderably upwards.

LXXVII. AVOSET.

Nostrils, narrow and pervious.

Tongue, short.

FEET, palmated; the webs deeply femilunated between each toe; back toe very small.

Avoletta, Br. Zool. fol. tab. C. Br. Zool. IV. tab. Ex. LXXVIII.

Inhabits Europe.

Recurvirostra of Linnaeus, Avosetta of Brisson VI. 537. Only one species.

BILL, fhort, strait.

NOSTRILS.

TONGGE.

Legs, long. THIGHS, fliort. FEET, palmated; has a back toe.

LXXVIII.

Tro-

Ex. Trochilus, vulgo Corrira Aldr. av. III. 288. Wil. orn. tab. LX.

Inhabits Italy.

Corrira of Brisson VI. 542. Only one species, and that probably never observed since the days of Aldrovandus, who is the only writer who seems to have seen it.

LXXIX. FLAM-MANT. BILL, thick, large, bending in the middle, forming a fharp angle, the higher part of the upper mandible carinated; the lower, depressed. The edges of the upper mandible sharply denticulated; of the lower, transversely sulcated.

Nostries, covered above with a thin plate, pervious, linearly longitudinal.

Tongue, cartilaginous, and pointed at the end; the middle muscular, base glandular, on the upper part aculeated.

NECK, very long.

LEGs and Thighs, of a great length.

FEET, webbed; the webs extend as far as the claws, but are deeply femilunated.

BACK TOE, very fmall.

Ex. Flamingo, Catefty Carol. I. LXXIII.

Inhabits S. America, Africa, and rarely the S. of Europe.

Phoenicopterus of Linnaeus. Only one species.

With

#### \* 米 With short Legs.

BILL, ftrong, bending in the middle, and hooked at the end of the upper mandible. That of the lower mandible abrupt, and the lower part inclining downwards.

LXXX. ALBATROSS,

Nostrils, opening forward, and covered with a large convex guard.

TONGUE.

Toes, no back toe.

Albatrofs, EDw. LXXXVIII.

Ex.

Inhabits within the Tropics.

Diomedea exulans of Linnaeus, Albatross of Brisson VI.

BILL, strong, thick, convex, compressed.

LXXXI. AUK.

Nostrils, linear, placed near the edge of the mandible.

TONGUE, almost as long as the bill.

Toes, no back toe.

Puffin, Br. Zool. fol. tab. H.

Ex.

Auk, Br. Zool. IV. tab. XIX.

Inhabits the northern parts of Europe, Afia, and America; gregarious in general; lays only one egg; these, the Grebe, Divers, and Pinguins, while on land, seldom move much.

Alca

Alca of Linnaeus, Fratercula and Alca of Briffon VI. 81.85. Linnaeus has V. species, Briffon IV. viz. I of the Fr. or Puffin, III of the Alca, or Auk.

#### LXXXII. GUILLE-MOTE.

BILL, flender, ftrong, pointed, the upper mandible flightly bending towards the end; base covered with short soft feathers.

NOSTRILS, lodged in a hollow near the base. Tongue, slender, almost the length of the bill. Toes, no back toe.

Guillemot, Br. Zool. fol. tab. H. 3. Leffer Guillemot, Br. Zool. IV. tab. XX.

> Inhabits the fame places with the former, and lays only one egg.

> Linnaeus classes this genus with the Colymbi. The Uria of Brisson VI. 70, who has IV species.

#### LXXXIII. DIVER

BILL, firong, firait, pointed, upper mandible the longeft; edges of each bending inwards.

Nostrils, linear; the upper part divided by a small cutaneous appendage.

- Tongue, long and pointed, ferrated at each fide near the base.

LEGS, very thin and flat.

Toes, the exterior the longest; the back toe small, joined to the interior by a small membrane.

TAIL, short; consists of twenty feathers.

Great

Great Northern Diver, Br. Zool. fol. tab. K. 2. Lumme, Br. Zool. vol. IV. tab. XXI.; Ex.

Inhabits the north of Europe, Asia, and America.

Colymbus of Linnaeus, and Mergus of Brisson VI. 104: The last has VI species. Linnaeus mixes with this genus Grebes and Guillemots.

BILL, greatly compressed; lower mandible much longthan the upper.

LXXXIV. SKIMMER.

Nostrils, linear and pervious,

TONGUE.

Toes, a small back toe.

TAIL, a little forked.

Cutwater, Catefby Carol. I. tab. XC.

Ex.

Inhabits India and America.

Rynchops of Linnaeus. Rygchopfalia of Brisson VI. 223.

I species.

Rynchops, from purgoe, a bill, and rowress to cut; the upper mandible being as if cut. I call it Skimmer, from the manner of its collecting its food with the lower mandible as it flies along the furface of the water.

H

LXXXV. TERN. BILL, strait, stender, pointed.
Nostrils, linear.
Tongue, stender and sharp.
Wings, very long.
Toes, a small back toe.
Tall, forked.

Ex. Great Tern, Br. Zool. fol. tab. L \*. Little Tern, Br. Zool. IV. tab. LXXXI.

Clamorous, much on the wing, gregarious, lays four eggs on the ground.

Inhabits Europe and America.

Sterna of Linnaeus, and Briffon VI. 202. Linnaeus has VII species, Briffon the same.

LXXXVI. GULL.

BILL, firong, firait, but bending down at the point; on the under part of the lower mandible an angular prominency.

Nostrils, oblong and narrow, placed in the middle of the bill.

TONGUE, a little cloven.

Body, light; WINGS, long.

LEGS, fmall and naked above the knees; back toe fmall.

Great

Great Black and White Gull, Br. Zool. fol. tab. L. Winter Mew, Br. Zool. IV. tab. LXXX.

Ex

An universal genus; much on the wing, clamorous, hungry, piscivorous, carnivorous, gregarious; lays four or five eggs, generally on high cliffs.

Larus of Linnaeus, and Larus and Stercoraria of Briffon VI. 153. The first has XI species, the last XVIII.

BILL, ftrait; but hooked at the end.'

NOSTRILS, cylindric, tubular.

TONGUE.

LEGS, naked above the knees.

BACK TOE, none; instead, a sharp spur pointing downwards.

LXXXVII; PETREL

Fulmar, Br. Zool. fol. tab. M 2. Little Petrel, Br. Zool. IV. tab. LXXXII.

E

Inhabits all parts of the ocean; but the species most numerous in the high southern latitudes, as the Auks are in the northern. Many have the faculty of spurting an oily liquid out of their stomachs.

Procellaria of Linnaeus, Procellaria and Puffinus of Briffon. Linnaeus has VI species, Briffon VII.

BILL

LXXXVAI. MERGAN-SER. BILL, flender, a little depressed, furnished at the end with a crooked nail. Edges of each mandible very sharply ferrated.

NOSTRILS, near the middle of the mandible, fmall and fub-ovated.

TONGUE, flender.

FEET, the exterior toe longer than the middle.

Ex. Goofander, Br. Zool. fol. tab N \*.

Red-breafted Goofander, Br. Zool. IV. LXXXIII.

Great divers, feed on fish.

Mergus of Linnaeus, and Merganser of Brisson, VI. 230. Linnaeus has VI species, Brisson VII. The name, Merganser, or Diving Goose.

LXXXIX. DUCK. BILL, strong, broad, flat, or depressed; and commonly surnished at the end with a nail. Edges marked with sharp Lamellae.

Nostrils, fmall, oval.

Tongue, broad, edges near the base fringed.

FEET, middle toe the longest.

Ex. Br. Zool. IV. tab. XXIV.

Found in all climates.

Anas of Linnaeus, who has XLV species. Brisson divides this genus into Anser and Anas; has XVI of the first, and XLII of the second.

BILL,

BILL, strong, strait, bending a little towards the XC.PINGUIN point.

Nostrils.

TONGUE.

Wings, very small, pendulous, useless for slight; covered with mere slat shafts.

Bony, covered with thick short feathers, with broad shafts, placed as compactly as scales.

LEGS, fhort and thick, placed quite behind.

Toes, four standing forward; the interior loofe, the rest webbed.

TAIL, very stiff, consisting only of broad shafts.

Patagonian Pinguin. Ph. Tr. vol. LVIII. 91. tab. V. Ex

Inhabits the Southern parts of S. America and an isle near the Cape of Good Hope. Lives much at sea. The wings act as sins. On land, burrows. Are analogous to Seals.

Diomedea demersa and Phaethon demersus of Linnaeus.

Spheniscus and Catarrattis of Brisson VI. 96. and 102.

I call it Pinguin, the name first given it by the Dutch voyagers, à Pinguedine.

BILL, long and ftrait; the end either hooked or flo- XCI. PELEping.

CAN.

Nostrils, either totally wanting, or fmall, and placed in a furrow, that runs along the fides of the bill.

FACE,

FACE, naked.

GULLET, naked, and capable of great diffention. Toes, all four webbed.

Fr. Pelican EDw. XCII.

Corvorant, Br. Zool. fol. tab. J. 1.

Congenerous birds; inhabit all parts of the globe:

Pelecanus of Linnaeus, who has VIII species. Brisson divides this genus into Sula, Phalacrocorax, and Onocrotalus, and forms out of them XII species, VI. 494. 511. and 519. All feed on fish. The Corvorants sit, and often breed in trees.

XCII. TRO- BILL, compressed, slightly sloping down. Point sharp. Under mandible angular.

Nostrils, pervious.

TONGUE.

Toes, all four webbed.

TAIL, cuneiform: Two middle feathers extending for a vast length beyond the others.

Ex. Tropic bird, EDw. CXLIX.

Inhabits within the Tropics. Flies very high.

Phaethon

Phaethon of Linnaeus, from the great heighth it aspires to. Lepturus of Brisson, from the slenderness of its tail, VI. 479.

BILL, long, strait, sharp pointed.

XCIII. DAR

TONGUE.

NECK, of a great length.

FACE and gullet covered with feathers.

Toes, all four webbed.

Black-bellied Anhinga, Ind. Zool. tab. XII.

Res.

Inhabits Guinea, Ceylon, and S. America. Darts out its head either at its food, or at passengers that go by; whence the name.

Plotus of Linnaeus, Anhinga of Briffon, VI. 476.

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